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Beckett et al.

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(54) **SYSTEMS AND METHODS FOR MEASURING RADIATED THERMAL ENERGY DURING AN ADDITIVE MANUFACTURING OPERATION**

(71) Applicant: **Sigma Labs, Inc.**, Santa Fe, NM (US)

(72) Inventors: **Darren Beckett**, Corrales, NM (US); **Scott Betts**, Albuquerque, NM (US); **Martin Piltch**, Los Alamos, NM (US); **R. Bruce Madigan**, Butte, MT (US); **Lars Jacquemetton**, Santa Fe, NM (US); **Glenn Wikle**, Santa Fe, NM (US); **Mark J. Cola**, Santa Fe, NM (US); **Vivek R. Dave**, Concord, NH (US); **Alberto M. Castro**, Santa Fe, NM (US); **Roger Frye**, Santa Fe, NM (US)

(73) Assignee: **SIGMA LABS, INC.**, Santa Fe, NM (US)

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CPC combination set(s) only.
See application file for complete search history.

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Primary Examiner — Dana Ross

Assistant Examiner — Lawrence H Samuels

(74) *Attorney, Agent, or Firm* — Kilpatrick Townsend & Stockton LLP

(57) **ABSTRACT**

This disclosure describes various methods and apparatus for characterizing an additive manufacturing process. A method for characterizing the additive manufacturing process can include generating scans of an energy source across a build plane; measuring an amount of energy radiated from the build plane during each of the scans using an optical sensing system that monitors two discrete wavelengths associated with a blackbody radiation curve of the layer of powder; determining temperature variations for an area of the build plane traversed by the scans based upon a ratio of sensor

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